

REMARKS

As set forth in the foregoing amendment, applicant has canceled claims 1-3 and 13-15, amended claims 4, 5, 12, 16 and 23, and added new claims 26-35. Accordingly, claims 4-12, and 16-35 are pending and await examination.

No new matter is being introduced. Claims 4 and 5 have been rewritten in independent form by incorporating the limitations of canceled claims 1-3. Claim 16 has also been rewritten in independent form by incorporating the limitations of canceled claims 13-15. Claims 12 and 23 have been amended to change their dependency. Support for new claims 26-27 and 33-34 may be found in the Specification as originally filed at pp. 8-9 and Fig. 2, among other places. Support for new claims 28 and 35 may be found at p. 9 and Figs. 2 and 5, and support for new claims 29-31 may be found at pp. 12-14 and Fig. 5.

Applicant submits that the application, as amended, is in condition for allowance and early favorable action is requested.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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**MARK-UP PAGES FOR THE MARCH 14, 2002, AMENDMENT TO
U.S. PATENT APPLICATION SER. NO. 09/609,881**

The replacement for claims 4, 5, 12, 16 and 23 resulted from the following changes:

4. (Amended) An [The] evaporator and condenser unit [of claim 3] for use in distilling a liquid, the evaporator and condenser unit comprising:

a housing;

a motor for supplying rotary power within the housing;

a compressor having a compressor inlet for receiving a vapor generated within the housing and a compressor outlet for returning compressed vapor to the housing;

a heat exchanger plate disposed within the housing and operatively coupled to the motor for rotation about an axis, the heat exchanger plate having a plurality of folds and two opposing edges that are joined together so as to give the folded plate a generally circular shape having a center that is coaxial with the axis of rotation, the folds defining a plurality of spaced-apart panels having corresponding surfaces that define alternating evaporating and condensing chambers between opposing panel surfaces; and

a first end plate and a second end plate disposed within the housing substantially perpendicular to the axis of rotation, the folded heat exchanger plate mounted between the first and second end plates so as to seal the evaporating chambers from the condensing chambers, wherein

the evaporating chambers are in fluid communication with the compressor inlet so as to provide vapor thereto, the condensing chambers are in fluid communication with the compressor outlet so as to receive compressed vapor therefrom, and the evaporating and condensing chambers are sealed from each other.

the evaporating and condensing chambers include inner and outer edges relative to the axis of rotation,

the evaporating chambers are sealed at their inner edges by corresponding folds in the heat exchanger plate, and are open at their outer edges,

the condensing chambers are open at their inner edges, and are sealed at their outer edges by corresponding folds in the heat exchanger plate, and
[wherein] the housing includes a lower portion defining a sump containing the liquid to be distilled, the unit further comprises a plurality of liquid feed distribution ports extending through the second end plate such that a liquid flow path exists between the sump and the evaporating chambers via the liquid feed distribution ports during rotation of the heat exchanger plate.

5. (Amended) An [The] evaporator and condenser unit [of claim 3] for use in distilling a liquid, the evaporator and condenser unit comprising:

a housing;

a motor for supplying rotary power within the housing;

a compressor having a compressor inlet for receiving a vapor generated within the housing and a compressor outlet for returning compressed vapor to the housing;

a heat exchanger plate disposed within the housing and operatively coupled to the
heat exchanger plate having a plurality of folds and
two opposing edges that are joined together so as to give the folded plate a generally circular shape having a center that is coaxial with the axis of rotation, the folds defining a

plurality of spaced-apart panels having corresponding surfaces that define alternating evaporating and condensing chambers between opposing panel surfaces; and

a first end plate and a second end plate disposed within the housing substantially perpendicular to the axis of rotation, the folded heat exchanger plate mounted between the first and second end plates so as to seal the evaporating chambers from the condensing chambers, wherein

the evaporating chambers are in fluid communication with the compressor inlet so as to provide vapor thereto, the condensing chambers are in fluid communication with the compressor outlet so as to receive compressed vapor therefrom, and the evaporating and condensing chambers are sealed from each other,

the evaporating and condensing chambers include inner and outer edges relative to the axis of rotation,

the evaporating chambers are sealed at their inner edges by corresponding folds in the heat exchanger plate, and are open at their outer edges,

the condensing chambers are open at their inner edges, and are sealed at their outer edges by corresponding folds in the heat exchanger plate, and

[wherein] the housing includes a lower portion defining a sump containing the liquid to be distilled, the unit further comprising:

at least one rotary scoop tube coupled to the second end plate and extending into the sump; and

a plurality of liquid feed distribution ports extending through the second end plate, the at least one rotary scoop tube and the liquid feed distribution ports cooperating

to provide a liquid flow path between the sump and the evaporating chambers during rotation of the heat exchanger plate.

12. (Amended) The evaporator and condenser unit of claim 4 [1] wherein the folds of the heat exchanger plate are co-planar with the axis of rotation.

16. (Amended) A [The] heat exchanger [of claim 15] for use in a distiller having a supply of compressed vapor, a liquid to be distilled, and source of rotary power, the heat exchanger comprising:

a heat exchanger plate operatively coupled to the source of rotary power for rotating the heat exchanger plate about an axis, the heat exchanger plate having a plurality of folds and two opposing edges that are joined together so as to give the folded plate a generally circular shape having a center that is coaxial with the axis of rotation, the folds defining a plurality of spaced-apart panels having corresponding surfaces that define alternating evaporating and condensing chambers between opposing panel surfaces; and

a first end plate and a second end plate arranged substantially perpendicular to the axis of rotation, the folded heat exchanger plate mounted between the first and second end plates and cooperating with the heat exchanger plate so as to seal the evaporating chambers from the condensing chambers, wherein

the evaporating chambers are in fluid communication with the liquid to be distilled, the condensing chambers are in fluid communication with the supply of compressed vapor, and the evaporating and condensing chambers are sealed from each other.

the evaporating and condensing chambers include inner and outer edges relative to the axis of rotation,

the evaporating chambers are sealed at their inner edges by corresponding folds in the heat exchanger plate, and are open at their outer edges,

the condensing chambers are open at their inner edges, and are sealed at their outer edges by corresponding folds in the heat exchanger plate, and

[wherein] the distiller further includes a sump containing the liquid to be distilled, the heat exchanger further comprising a plurality of liquid feed distribution ports extending through the second end plate such that a liquid flow path exists between the sump and the evaporating chambers via the liquid feed distribution ports during rotation of the heat exchanger plate.

23. (Amended) The heat exchanger of claim 16 [13] wherein the folds of the heat exchanger plate are co-planar with the axis of rotation.